

CLAIMS

1. (Previously Amended) An agricultural composition for producing a foam for use in protecting plants against frost or freezing temperatures consisting essentially of:
about 40% to about 90% by weight of vegetable oil;
an emulsifier; and
a foaming agent;
wherein said vegetable oil is selected from the group consisting of coconut oil, corn oil, cottonseed oil, palm oil, rapeseed oil, soya oil, and sunflower oil.
2. (Previously Amended) The composition of Claim 1 wherein the composition is incorporated into water.
3. (Previously Amended) The composition of Claim 1 wherein said vegetable oil is a crude vegetable oil.
4. (Previously Amended) The composition of Claim 3 wherein said emulsifier is a compound of silicone.
5. (Original) The composition of Claim 4 wherein said compound of silicone is a methylated silica polydimethylsiloxane.
6. (Previously Cancelled)
7. (Previously Amended) The composition of Claim 1 wherein said emulsifier is an alkyl oxyalkylate.
8. (Previously Amended) The composition of Claim 1 wherein said foaming agent are neutralized alkyl sulfates.

9. (Previously Amended) The composition of Claim 1 wherein said foaming agent are neutralized alkyl sulfonates.
10. (Previously Amended) The composition of Claim 1 wherein said foaming agent are neutralized aryl sulfonates.
11. (Previously Amended) The composition of Claim 1 wherein said foaming agent are neutralized alkyl sulfate and triethanolamine.
12. (Previously Amended) The composition of Claim 1 wherein said foaming agent is an amine oxide.
13. (Previously Amended) The composition of Claim 1 wherein said foaming agent is a quaternary ammonium compound.
14. (Previously Canceled)
15. (Previously Amended) The composition of Claim 1 wherein said foaming agent is an aryl oxyalkylate.
16. (Previously Amended) The composition of Claim 1 wherein said foaming agent is a hydrolyzed protein.
17. (Previously Amended) The composition of Claim 1 wherein said foaming agent are oxyalkylates.
18. (Previously Canceled)

19. (Previously Canceled)
20. (Previously Canceled)
21. (Previously Canceled)
22. (Previously Canceled)
23. (Previously Canceled)
24. (Previously Canceled)

25. (Currently Amended) A composition for producing a foam for use in protecting plants against frost or freezing temperatures consisting essentially of:
a pre-emulsion concentrate made up of vegetable oil, an emulsifier, and a foaming agent;
water; and
one or more components selected from the group consisting of a foam stabilizer, a foam thickener, ~~a plant growth regulator~~, sodium lauryl sulfate and triethanolamine;
wherein said vegetable oil is selected from the group consisting of soya oil, coconut oil, corn oil, cottonseed oil, palm oil, rapeseed oil, and sunflower oil;
wherein said emulsifier is selected from the group consisting of alkyl, aryl, or glycol ethoxylate, propoxylate, butoxylate or sulfonate based emulsifiers; and
wherein said foaming agent is selected from the group consisting of quaternary ammonium compounds, amine oxides, neutralized alkyl sulfates, neutralized alkyl and aryl sulfonates, hydrolyzed protein, and oxyalkylates.

26. (Previously Amended) The composition of Claim 25 wherein said emulsifier comprises a 3 mole ethylene oxide adduct of C12 and C14 alcohols.
27. (Original) The composition of Claim 25 wherein said emulsifier comprises about 30% to about 50% by weight of C12 alcohol and about 50% to about 70% C14 alcohol and wherein said C12 alcohol and said C14 alcohol are ethoxylated with 3 moles of ethylene oxide.
28. (Previously Cancelled)
29. (Previously Amended) The composition of Claim 25 wherein said foam stabilizer and thickener is carboxyalkylcellulose and mucilage.
30. (Previously Amended) The composition of Claim 25 wherein said vegetable oil is a crude vegetable oil.
31. (Previously Cancelled)
32. (Previously Amended) The composition of Claim 25 wherein said pre-emulsion concentrate is formed from about 75% by weight of soya oil; about 20% by weight of said emulsifier comprising 3 mole ethylene oxide adduct of C12 alcohol and C14 alcohol; about 3% by weight of sodium lauryl sulfate; and about 2% by weight of triethanolamine.

33. (Original) A method of protecting plants from frost or freezing temperatures comprising the steps of:
producing a pre-emulsion concentrate comprising a vegetable oil, an emulsifier and a foaming agent;
mixing the pre-emulsion concentrate with water to form an oil and water emulsion;
aerating the oil and water emulsion to form a foam; and
applying the foam to the plants.
34. (Previously Withdrawn)
35. (Previously Amended) A method of spraying plants comprising the steps of:
producing a pre-emulsion concentrate consisting essentially of about 40% to about 90% by weight of vegetable oil and an emulsifier selected from the group consisting of alkyl, aryl, glycol ethoxylate, propoxylate, butoxylate, and sulfonate based emulsifiers;
mixing the pre-emulsion concentrate with water to form an oil and water emulsion; and
applying the oil and water emulsion onto the surfaces of the plants.
36. (Previously Added) The method of Claim 33, wherein the vegetable oil is a crude vegetable oil.
37. (Previously Amended) The method of Claim 33, wherein the emulsifier is selected from the group consisting of alkyl, aryl, glycol ethoxylate, propoxylate, butoxylate, and sulfonate based emulsifiers.

38. (Previously Added) The method of Claim 33, wherein the foaming agent is selected from the group consisting of neutralized aryl sulfonates, neutralized alkyl sulfate and triethanolamine, aryl alcohol, hydrolyzed protein, and oxyalkylates.
39. (Previously Added) The method of Claim 33, wherein the emulsion includes a foam stabilizer.
40. (Previously Added) The method of Claim 33, wherein the emulsion includes a growth regulator.
41. (Previously Added) The method of Claim 33, wherein the emulsion includes a pesticide.
42. (Previously Amended) A method of treating plants comprising the steps of:
producing a pesticide consisting essentially of about 40% to about 90% by weight of vegetable oil and an emulsifier; and
placing the pesticide into water and applying the water and the pesticide to the surface of the plants;
wherein said vegetable oil is selected from the group consisting of coconut oil, cottonseed oil, palm oil, rapeseed oil, soya oil, and sunflower oil.
43. (Previously Added) The method of Claim 42, wherein the vegetable oil is a crude vegetable oil.
44. (Previously Cancelled)
45. (Previously Cancelled)

46. (Previously Added) The method of Claim 42, wherein the emulsifier is selected from the group consisting of alkyl, aryl, glycol ethoxylate, propoxylate, butoxylate, and sulfonate based emulsifiers.
47. (Previously Amended) The method of Claim 42, wherein the pesticide includes a plant growth regulator.